

REMARKS

Applicant would like to thank the Examiner for the careful consideration given the present application. The application has been carefully reviewed in light of the Office action, and amended as necessary to more clearly and particularly describe the subject matter which applicant regards as the invention.

Claims 1-15 remain in the application. Claim 1 has been amended, but no new matter has been added. Claims 16 and 17 are new, but do not include new matter. Consideration of new claims 16 and 17 is respectfully requested.

Claim 7 has been objected to as being in the form of a multiple dependent claim. Applicant refers the Examiner to Preliminary Amendment A, filed with the application, wherein the condition of multiple dependency was removed. Claim 7 has been additionally amended, herein, to replace the word "claims" with "claim." Applicant requests the Examiner's acknowledgement of the receipt of the Preliminary Amendment A and withdrawal of the objection to claim 7.

Claim 15 has been rejected under 35 U.S.C. §112, second paragraph, as being indefinite, specifically the clause "on its end directed toward". Claim 15 has been amended to cure this deficiency. Reconsideration and withdrawal of the rejection of claim 15 is respectfully requested.

Claims 1-6, 8, 9 and 13 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent 5,249,790 to Brame et al. (hereinafter Brame). For the following reasons, the Examiner's rejection is traversed.

Brame is directed to an apparatus for separating thin, flat articles, such as blanks of cardboard displaced successively in a continuous line on at least one

conveyor so as to create downstream of the apparatus groups of articles separated from one another by holes in the line of articles. Brame utilizes a claw that is part of a movable lever to stop the cardboard blanks in a first position and then release the blanks when the lever is moved to a second position. A wheel (or wheels) is pivotally attached to the lever and is located downstream of the claw.

Claim 1 claims a device that establishes an imbricated stream of flat articles from a supplied imbricated stream, or from a stream of imbricated stacks, or from a stack of articles. The apparatus of Brame does not *establish* such an imbricated stream, as required. Rather, Brame begins with an imbricated stream, but establishes groups of separated stacks of articles. These stacks that are created are not imbricated.

Additionally, regarding amended claim 1, Brame does not disclose an apparatus wherein a dancing roller and a stopping means are coupled to be movable together towards and away from a conveying surface *such that a width of the passage gap between the stopping means and the conveying surface is controlled by a displacement of the dancing roller caused by the imbricated stream being conveyed beneath the dancing roller by the conveying surface and contacting the dancing roller, and wherein a change in the width of the passage gap is equal to the displacement of the dancing roller*, as required. Rather, Brame teaches control of movement of the lever 5 (which controls the gap size between the lever, including the claw attached to the lever, and the conveyor below) by a counter that counts the number of blanks approaching the apparatus. The counter first actuates a jack which pivots the lever, including the claw, into an active position where all approaching blanks are stopped (variable distance of the gap between the lever and

conveyor and partial stoppage is not taught). After counting a desired number of blanks, the jack is re-actuated and the entire stopped group is released.

When the jack is first actuated, it is important to note that the lever and wheel of Brame are not coupled to move together and do not move together away from the conveyor. Instead, because the wheel is pivotally spring mounted and not coupled to move together with the lever, the wheel remains in contact with the conveyor. The stroke of the jack, not the wheel, determines how far the lever and the claw attached thereto move away from the conveyor.

Because movement of the separation apparatus is not the result of contact by the stream of articles passing below a roller, but instead a counter, and the displacement of the lever (and claw attached thereto) is not the equal to the displacement of the wheel of Brame, Brame does not anticipate the claimed invention. Reconsideration and withdrawal of the rejection of claim 1 is respectfully requested.

Regarding claim 2 Brame does not disclose stopping means that are spring mounted on a support. Rather, Brame discloses a wheel(s) that are spring mounted to a lever via a connecting rod, but the lever itself, nor the claw that stops objects, is spring mounted. Thus, reconsideration and withdrawal of the rejection of claim 2 is respectfully requested.

Regarding claim 3, Brame does not disclose a "dancing roller and stopping means rigidly coupled by the frame at least during operation of the device" as required. Brame does disclose a claw 13 that is rigidly attached to a lever 5, wherein the claw stops the approaching cardboard blanks. But, Brame also discloses rolling wheels that are pivotaly attached to the lever 5, via connection rods 16. The

difference here being that the rolling wheels are not rigidly coupled to the lever and thus, not rigidly coupled to the claw. Reconsideration and withdrawal of the rejection of claim 3 is respectfully requested.

Claims 4, 5, 6, 8 and 9 depend directly or indirectly from claim 3 and indirectly from claim 1, which are believed to be allowable for the reasons stated above. Thus, reconsideration and withdrawal of the rejection of claims 4, 5, 6, 8 and 9 is respectfully requested.

Regarding claim 13, Brame does not disclose a conveying surface "bent around a bending axis *oriented essentially parallel to the conveying direction* or is correspondingly stepped, as required. Rather, Brame discloses bending rollers (not numbered) that cause the conveyor belt to bend around an axis oriented *perpendicular to the conveying direction*. Because the direction of bending is opposite that of the claimed invention, Brame does not anticipate the claimed invention. Reconsideration and withdrawal of the rejection of claim 13 is respectfully requested.

Claims 1 and 14 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent 4,713,831 to Morisod (hereinafter Morisod). For the following reasons, the Examiner's rejection is traversed.

Morisod is directed to a counting device for counting the number of objects passing by the device. The device includes a sensor element with a tip that is pushed backward after contacting the item to be counted. The device also includes a roller that is contacted and moved upward by the item after the item has made contact with the element tip. Movement of the roller causes the entire device to reset its position in order to count the next item in line.

Regarding claim 1, the device of Morisod fails to disclose a device for establishing an imbricated stream of flat articles, as required. Rather, the counting device of Morisod does not change the configuration of the group of articles being counted, in any way. Thus, no new configuration is established.

Additionally, Morisod does not disclose a stopping means that stops the articles, as required. Rather Morisod teaches a sensing element with a tip that contacts an item to be counted and *is moved backward* by that item. The item is not stopped; in fact stopping the item would defeat the purpose of the counting device as the sensing element would not move and function. For at least these reasons, Morisod does not anticipate claim 1 of the invention. Reconsideration and withdrawal of the rejection of claim 1 is respectfully requested.

Regarding claim 14, as previously stated, Morisod does not teach stopping means as required. Additionally, even if as proposed by the Examiner, the sensor element acted as a stopping means, the first and second sections of the sensor element are not oriented with respect to the conveying surface at angles of 75 to 80 degrees and 45 to 60 degrees respectively, as required. Rather the first section of the sensor element is angled at approximately 45 degrees from the conveying surface and the second section approximately 15 degrees from the conveying surface. Thus, Morisod does not anticipate the features of claim 14. Reconsideration and withdrawal of the rejection of claim 14 is respectfully requested.

Claims 10-12 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Brame in view of U.S. 5,288,067 to Stock (hereinafter Stock). For the following reasons, the Examiner's rejection is traversed.

Stock is directed to an apparatus for conveying an imbricated stream of

sheets to a sheet processing machine. The apparatus includes a source of high pressure coupled to a low pressure suction chamber such that the suction pressure on a final sheet in a stream of sheets is selectively reduced sufficiently to enable easy and reliable alignment of the last sheet in the imbricated stream.

Even if the references were combined in the manner proposed by the Examiner, the present invention would not result. Claim 10 depends directly from claim 1. As previously stated Brame does not teach the *establishment* of an imbricated stream or a disclose an apparatus wherein a dancing roller and a stopping means are coupled to be movable together towards and away from a conveying surface *such that a width of the passage gap between the stopping means and the conveying surface is controlled by a displacement of the dancing roller caused by the imbricated stream being conveyed beneath the dancing roller by the conveying surface, and wherein a change in the width of the passage gap is equal to the displacement of the dancing roller*, as required. Stock does not cure the deficiencies of Brame. Stock teaches the handling of an imbricated stream of items, but not a device that *establishes* such an imbricated stream. Further, Stock does not teach means for stopping items (with or without the features claimed above) within the imbricated stream, but only transport of the imbricated stream. Because establishment of an imbricated stream and a stopping means, with the features listed above, are not taught by either reference alone, the combination of the references does not teach these features. Thus, reconsideration and withdrawal of the rejection of claim 10 is respectfully requested.

Claims 11 and 12 depend directly or indirectly from claim 10 which is believed to be allowable for the reasons stated above. Reconsideration and withdrawal of the

rejection of claims 11 and 12 is respectfully requested.

Claim 15 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Brame in view of U.S. 4,911,421 to Hannon (hereinafter Hannon). For the following reasons, the Examiner's rejection is traversed.

Hannon is directed to a newspaper handling loader and metering hopper combination. The hopper of the system receives successive stacks of newspapers and meters them one at a time onto a cross conveyor in a desired sequence coordinated with the newspaper or parts thereof from other interfaced hoppers. Each metering hopper is provided with a pair of stop devices that include a pair of downwardly projecting fingers.

Even if the references were combined in the manner proposed by the Examiner, the present invention would not result. Claim 15 depends directly from claim 1. As previously stated Brame does not teach the *establishment* of an imbricated stream or a disclose an apparatus wherein a dancing roller and a stopping means are coupled to be movable together towards and away from a conveying surface *such that a width of the passage gap between the stopping means and the conveying surface is controlled by a displacement of the dancing roller caused by the imbricated stream being conveyed beneath the dancing roller by the conveying surface, and wherein a change in the width of the passage gap is equal to the displacement of the dancing roller*, as required. Hannon does not cure these deficiencies. Hannon does not teach the establishment of an imbricated stream. Further, Hannon does not teach means for stopping items that includes the features of claim 1, but rather only a simple stairstep-like stop device. This device does not include a dancing roller that dictates the size of the gap within the stopping

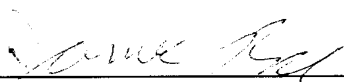
device. Because establishment of an imbricated stream and a stopping means with the features listed above are not taught by either reference alone, the combination of the references does not teach these features. Thus, reconsideration and withdrawal of the rejection of claim 10 is respectfully requested.

In light of the foregoing, it is respectfully submitted that the present application is in a condition for allowance and notice to that effect is hereby requested. If it is determined that the application is not in a condition for allowance, the Examiner is invited to initiate a telephone interview with the undersigned attorney to expedite prosecution of the present application.

If there are any additional fees resulting from this communication, please charge same to our Deposit Account No. 18-0160, our Order No. FRR-15424.

Respectfully submitted,

RANKIN, HILL, PORTER & CLARK LLP

By 
James A. Balazs, Reg. No. 47401

4080 Erie Street
Willoughby, Ohio 44094-7836
(216) 566-9700